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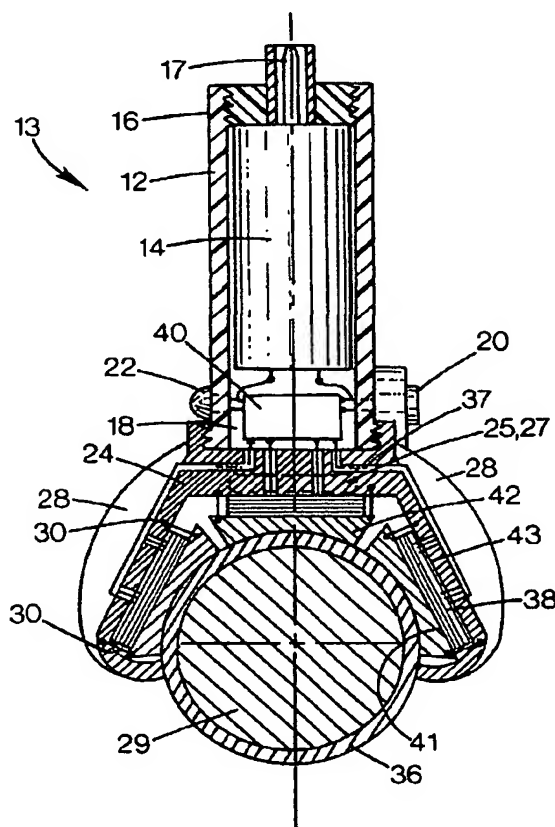
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[Continued on next page]

(54) Title: SENSOR FOR DETERMINING THE EFFECT OF ANAESTHETIC TREATMENT BY COOLING THE SKIN WITH THE SENSOR



(57) Abstract: The sensor device has a housing (12) with a flanged housing (24). The housing (24) is made of a material having a first high heat-conductivity index. A holder (30) is attached to the housing (24) and made of a material with a second low heat-conductivity index that is substantially lower than the first high heat conductivity index. The holder (30) holds a peltier element (38) and is connected to a power source (14) so that the element (38) has a cooled layer (41) and a heated layer (43). A rotatable roller (36) is in operative engagement with the layer (41) so that the layer (41) cools the roller (36). The roller (36) may be rolled on the skin of the patient to determine the scope and effect of anesthetic treatment.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 03/01403

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: A61B 5/16 // H01L 23/38, H01L 35/28, A61B 5/11
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: A61B, H01L, F25B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, INSPEC, MEDLINE, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5372140 A (POMFRETT, C.J.D.), 13 December 1994 (13.12.94), figure 1, abstract --	1-10
A	EP 1046373 A1 (KYOHO MACHINE WORKS LTD.), 25 October 2000 (25.10.00), figure 10, abstract --	1-10
P,A	WO 03086188 A2 (INSTRUMENTARIUM CORPORATION), 23 October 2003 (23.10.03), figure 1, abstract --	1-10

☒ Further documents are listed in the continuation of Box C.
 ☒ See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
 "E" earlier application or patent but published on or after the international filing date
 "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
 "O" document referring to an oral disclosure, use, exhibition or other means
 "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

5 December 2003

Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 03/01403

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>DATABASE WPI Week 199647 Derwent Publications Ltd., London, GB; Class S03, AN 1996-475509 abstract & RU 2055329 C1 (MOSC PEDIATRY CHILD SURGERY RES INST) 27 February 1996 (1996-02-27)</p> <p style="text-align: center;">-- -----</p>	1-10

INTERNATIONAL SEARCH REPORT

International application No.
PCT/SE 03/01403

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.: **1-10 in part**
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

see extra sheet

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/SE 03/01403

Claims 1-10 define a sensor in general with a peltier element for cooling the sensor. However, the description only supports the sensor for determining the effect of anaesthetic treatment. According to PCT Article 6, the claims shall define the matter for which protection is sought and they shall be fully supported by the description.

According to PCT Article 17(2)(a), the search is restricted to the sensor for determining the effect of anaesthetic treatment.

INTERNATIONAL SEARCH REPORT
Information on patent family members

06/09/03

International application No.
PCT/SE 03/01403

Patent document cited in search report			Publication date	Patent family member(s)		Publication date
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WO	03086188	A2	23/10/03	NONE		